

SEQUENCE LISTING

<110> Hu, Jing-Shan
Rosen, Craig
Liang, Cao

<120> Vascular Endothelial Growth Factor 2

<130> PF112P1

<140> 08/465,968
<141> 1995-06-06

<150> 08/207,550
<151> 1994-03-08

<160> 10

<170> PatentIn Ver. 2.0

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<212> DNA
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ctc gcc gct gcg ctg ctc ccg ggt cct cgc gag ggc ccc gcc gcc 98 /
Leu Ala Ala Ala Leu Leu Pro Gly Pro Arg Glu Ala Pro Ala Ala
-30 -25 -20

gcc gcc ttc gag tcc gga ctc gac ctc tcg gac gcg gag ccc gac gcg 146
Ala Ala Phe Glu Ser Gly Leu Asp Leu Ser Asp Ala Glu Pro Asp Ala
-15 -10 -5

ggc gag gcc acg gct tat gca agc aaa gat ctg gag gag cag tta cgg 194
Gly Glu Ala Thr Ala Tyr Ala Ser Lys Asp Leu Glu Glu Gln Leu Arg
-1 1 5 10 15

tct gtg tcc agt gta gat gaa ctc atg act gta ctc tac cca gaa tat 242
Ser Val Ser Ser Val Asp Glu Leu Met Thr Val Leu Tyr Pro Glu Tyr
20 / 25 30

tgg aaa atg tac aag tgt cag cta agg aaa gga ggc tgg caa cat aac 290
Trp Lys Met Tyr Lys Cys Gln Leu Arg Lys Gly Gly Trp Gln His Asn
35 40 45

POTENTIAL PROTEINS

aga gaa cag gcc aac ctc aac tca agg aca gaa gag act ata aaa ttt		338
Arg Glu Gln Ala Asn Leu Asn Ser Arg Thr Glu Glu Thr Ile Lys Phe		
50	55	60
gct gca gca cat tat aat aca gag atc ttg aaa agt att gat aat gag		386
Ala Ala Ala His Tyr Asn Thr Glu Ile Leu Lys Ser Ile Asp Asn Glu		
65	70	75
tgg aga aag actcaa tgc atg cca cgg gag gtg tgt ata gat gtg ggg		434
Trp Arg Lys Thr Gln Cys Met Pro Arg Glu Val Cys Ile Asp Val Gly		
80	85	90
aag gag ttt gga gtc gcg aca aac acc ttc ttt aaa cct cca tgt gtg		482
Lys Glu Phe Gly Val Ala Thr Asn Thr Phe Phe Lys Pro Pro Cys Val		
100	105	110
tcc gtc tac aga tgt ggg ggt tgc tgc aat agt gag ggg ctg cag tgc		530
Ser Val Tyr Arg Cys Gly Gly Cys Cys Asn Ser Glu Gly Leu Gln Cys		
115	120	125
atg aac acc agc acg agc tac ctc agc aag acg tta ttt gaa att aca		578
Met Asn Thr Ser Thr Ser Tyr Leu Ser Lys Thr Leu Phe Glu Ile Thr		
130	135	140
gtg cct ctc tct caa ggc ccc aaa cca gta aca atc agt ttt gcc aat		626
Val Pro Leu Ser Gln Gly Pro Lys Pro Val Thr Ile Ser Phe Ala Asn		
145	150	155
cac act tcc tgc cga tgc atg tct aaa ctg gat gtt tac aga caa gtt		674
His Thr Ser Cys Arg Cys Met Ser Lys Leu Asp Val Tyr Arg Gln Val		
160	165	170
cat tcc att att aga cgt tcc ctg cca gca aca cta cca cag tgt cag		722
His Ser Ile Ile Arg Arg Ser Leu Pro Ala Thr Leu Pro Gln Cys Gln		
180	185	190
gca gcg aac aag acc tgc ccc acc aat tac atg tgg aat aat cac atc		770
Ala Ala Asn Lys Thr Cys Pro Thr Asn Tyr Met Trp Asn Asn His Ile		
195	200	205
tgc aga tgc ctg gct cag gaa gat ttt atg ttt tcc tcg gat gct gga		818
Cys Arg Cys Leu Ala Gln Glu Asp Phe Met Phe Ser Ser Asp Ala Gly		
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gat gac tca aca gat gga ttc cat gac atc tgt gga cca aac aag gag		866
Asp Asp Ser Thr Asp Gly Phe His Asp Ile Cys Gly Pro Asn Lys Glu		
225	230	235
ctg gat gaa gag acc tgt cag tgt gtc tgc aga gcg ggg ctt cgg cct		914
Leu Asp Glu Glu Thr Cys Gln Cys Val Cys Arg Ala Gly Leu Arg Pro		
240	245	250
gcc agc tgt gga ccc cac aaa gaa cta gac aga aac tca tgc cag tgt		962
Ala Ser Cys Gly Pro His Lys Glu Leu Asp Arg Asn Ser Cys Gln Cys		
260	265	270
gtc tgt aaa aac aaa ctc ttc ccc agc caa tgt ggg gcc aac cga gaa		1010
Val Cys Lys Asn Lys Leu Phe Pro Ser Gln Cys Gly Ala Asn Arg Glu		
275	280	285

ttt gat gaa aac aca tgc cag tgt gta tgt aaa aga acc tgc ccc aga 1058
 Phe Asp Glu Asn Thr Cys Gln Cys Val Cys Lys Arg Thr Cys Pro Arg
 290 295 300

 aat caa ccc cta aat cct gga aaa tgt gcc tgt gaa tgt aca gaa agt 1106
 Asn Gln Pro Leu Asn Pro Gly Lys Cys Ala Cys Glu Cys Thr Glu Ser
 305 310 315

 cca cag aaa tgc ttg tta aaa gga aag aag ttc cac cac caa aca tgc 1154
 Pro Gln Lys Cys Leu Leu Lys Gly Lys Lys Phe His His Gln Thr Cys
 320 325 330 335

 agc tgt tac aga cgg cca tgt acg aac cgc cag aag gct tgt gag cca 1202
 Ser Cys Tyr Arg Arg Pro Cys Thr Asn Arg Gln Lys Ala Cys Glu Pro
 340 345 350

 gga ttt tca tat agt gaa gaa gtg tgt cgt tgt gtc cct tca tat tgg 1250
 Gly Phe Ser Tyr Ser Glu Glu Val Cys Arg Cys Val Pro Ser Tyr Trp
 355 360 365

 caa aga cca caa atg agc taagattgta ctgtttcca gttcatcgat 1298
 Gln Arg Pro Gln Met Ser
 370

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 tgggtccatg ctaacaaaga caaaagtctg tcttcctga accatgtgga taacttaca 1418

 gaaatggact ggagctcatc tgcaaaaggc ctcttgtaaa gactggttt ctgccaatga 1478

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 ccactaaaaa tattgtttct gcattcattt ttatagcaac aacaattggt aaaactcact 1598

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 -30 -25 -20 -15

Glu Ser Gly Leu Asp Leu Ser Asp Ala Glu Pro Asp Ala Gly Glu Ala
 -10 -5 -1 1

Thr Ala Tyr Ala Ser Lys Asp Leu Glu Glu Gln Leu Arg Ser Val Ser
 5 10 15

Ser Val Asp Glu Leu Met Thr Val Leu Tyr Pro Glu Tyr Trp Lys Met
 20 25 30

Tyr Lys Cys Gln Leu Arg Lys Gly Gly Trp Gln His Asn Arg Glu Gln

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40

45

50

Ala Asn Leu Asn Ser Arg Thr Glu Glu Thr Ile Lys Phe Ala Ala Ala
55 60 65

His Tyr Asn Thr Glu Ile Leu Lys Ser Ile Asp Asn Glu Trp Arg Lys
70 75 80

Thr Gln Cys Met Pro Arg Glu Val Cys Ile Asp Val Gly Lys Glu Phe
85 90 95

Gly Val Ala Thr Asn Thr Phe Phe Lys Pro Pro Cys Val Ser Val Tyr
100 105 110

Arg Cys Gly Gly Cys Cys Asn Ser Glu Gly Leu Gln Cys Met Asn Thr
115 120 125 130

Ser Thr Ser Tyr Leu Ser Lys Thr Leu Phe Glu Ile Thr Val Pro Leu
135 140 145

Ser Gln Gly Pro Lys Pro Val Thr Ile Ser Phe Ala Asn His Thr Ser
150 155 160

Cys Arg Cys Met Ser Lys Leu Asp Val Tyr Arg Gln Val His Ser Ile
165 170 175

Ile Arg Arg Ser Leu Pro Ala Thr Leu Pro Gln Cys Gln Ala Ala Asn
180 185 190

Lys Thr Cys Pro Thr Asn Tyr Met Trp Asn Asn His Ile Cys Arg Cys
195 200 205 210

Leu Ala Gln Glu Asp Phe Met Phe Ser Ser Asp Ala Gly Asp Asp Ser
215 220 225

Thr Asp Gly Phe His Asp Ile Cys Gly Pro Asn Lys Glu Leu Asp Glu
230 235 240

Glu Thr Cys Gln Cys Val Cys Arg Ala Gly Leu Arg Pro Ala Ser Cys
245 250 255

Gly Pro His Lys Glu Leu Asp Arg Asn Ser Cys Gln Cys Val Cys Lys
260 265 270

Asn Lys Leu Phe Pro Ser Gln Cys Gly Ala Asn Arg Glu Phe Asp Glu
275 280 285 290

Asn Thr Cys Gln Cys Val Cys Lys Arg Thr Cys Pro Arg Asn Gln Pro
295 300 305

Leu Asn Pro Gly Lys Cys Ala Cys Glu Cys Thr Glu Ser Pro Gln Lys
310 315 320

Cys Leu Leu Lys Gly Lys Lys Phe His His Gln Thr Cys Ser Cys Tyr
325 330 335

Arg Arg Pro Cys Thr Asn Arg Gln Lys Ala Cys Glu Pro Gly Phe Ser
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Tyr Ser Glu Glu Val Cys Arg Cys Val Pro Ser Tyr Trp Gln Arg Pro
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Gln Met Ser

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Leu Ala Arg Ser Gln Ile His Ser Ile Arg Asp Leu Gln Arg Leu Leu
35 40 45

Glu Ile Asp Ser Val Gly Ser Glu Asp Ser Leu Asp Thr Ser Leu Arg
50 55 60

Ala His Gly Val His Ala Thr Lys His Val Pro Glu Lys Arg Pro Leu
65 70 75 80

Pro Ile Arg Arg Lys Arg Ser Ile Glu Glu Ala Val Pro Ala Val Cys
85 90 95

Lys Thr Arg Thr Val Ile Tyr Glu Ile Pro Arg Ser Gln Val Asp Pro
100 105 110

Thr Ser Ala Asn Phe Leu Ile Trp Pro Pro Cys Val Glu Val Lys Arg
115 120 125

Cys Thr Gly Cys Cys Asn Thr Ser Ser Val Lys Cys Gln Pro Ser Arg
130 135 140

Val His His Arg Ser Val Lys Val Ala Lys Val Glu Tyr Val Arg Lys
145 150 155 160

Lys Pro Lys Leu Lys Glu Val Gln Val Arg Leu Glu Glu His Leu Glu
165 170 175

Cys Ala Cys Ala Thr Thr Ser Leu Asn Pro Asp Tyr Arg Glu Glu Asp
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Thr Asp Val Arg
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Leu Ser Asp His Ser Ile Arg Ser Phe Asp Asp Leu Gln Arg Leu Leu
35 40 45

His Gly Asp Pro Gly Glu Glu Asp Gly Ala Glu Leu Asp Leu Asn Met
50 55 60

Thr Arg Ser His Ser Gly Gly Glu Leu Glu Ser Leu Ala Arg Gly Arg
65 70 75 80

Arg Ser Leu Gly Ser Leu Thr Ile Ala Glu Pro Ala Met Ile Ala Glu
85 90 95

Cys Lys Thr Arg Thr Glu Val Phe Glu Ile Ser Arg Arg Leu Ile Asp
100 105 110

Arg Thr Asn Ala Asn Phe Leu Val Trp Pro Pro Cys Val Glu Val Gln
115 120 125

Arg Cys Ser Gly Cys Cys Asn Asn Arg Asn Val Gln Cys Arg Pro Thr
130 135 140

Gln Val Gln Leu Arg Pro Val Gln Val Arg Lys Ile Glu Ile Val Arg
145 150 155 160

Lys Lys Pro Ile Phe Lys Lys Ala Thr Val Thr Leu Glu Asp His Leu
165 170 175

Ala Cys Lys Cys Glu Thr Val Ala Ala Ala Arg Pro Val Thr Arg Ser
180 185 190

Pro Gly Gly Ser Gln Glu Gln Arg Ala Lys Thr Pro Gln Thr Arg Val
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Thr Ile Arg Thr Val Arg Val Arg Arg Pro Pro Lys Gly Lys His Arg
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Gly Gly Gln Asn His His Glu Val Val Lys Phe Met Asp Val Tyr Gln
35 40 45

Arg Ser Tyr Cys His Pro Ile Glu Thr Leu Val Asp Ile Phe Gln Glu

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55

60

Tyr Pro Asp Glu Ile Glu Tyr Ile Phe Lys Pro Ser Cys Val Pro Leu
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Met Arg Cys Gly Gly Cys Cys Asn Asp Glu Gly Leu Glu Cys Val Pro
 85 90 95

Thr Glu Glu Ser Asn Ile Thr Met Gln Ile Met Arg Ile Lys Pro His
 100 105 110

Gln Gly Gln His Ile Gly Glu Met Ser Phe Leu Gln His Asn Lys Cys
 115 120 125

Glu Cys Arg Pro Lys Lys Asp Arg Ala Arg Gln Glu Lys Lys Ser Val
 130 135 140

Arg Gly Lys Gly Lys Gly Gln Lys Arg Lys Arg Lys Lys Ser Arg Tyr
 145 150 155 160

Lys Ser Trp Ser Val Tyr Val Gly Ala Arg Cys Cys Leu Met Pro Trp
 165 170 175

Ser Leu Pro Gly Pro His Pro Cys Gly Pro Cys Ser Glu Arg Arg Lys
 180 185 190

His Leu Phe Val Gln Asp Pro Gln Thr Cys Lys Cys Ser Cys Lys Asn
 195 200 205

Thr Asp Ser Arg Cys Lys Ala Arg Gln Leu Glu Lys Asn Glu Arg Thr
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Cys Arg Cys Asp Lys Pro Arg Arg
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